

10 to 30 mol% of ZnO;

0.5 to 35 mol% in total of at least one of BaO and SrO;

1 mol% or less of F;

0.1 to 5 mol% of Al<sub>2</sub>O<sub>3</sub>; and

1.1 to 10 mol% in total of at least one of Na<sub>2</sub>O, K<sub>2</sub>O and Li<sub>2</sub>O, wherein Li is essential,

and the content of Li<sub>2</sub>O is 1.1 to 6 mol%.

*JL  
Carlo.*

3. (Amended) A spark plug comprising:

a center electrode;

a metal shell;

an insulator comprising alumina ceramic and disposed between the center electrode and the metal shell,

wherein at least part of the surface of the insulator is covered with a glaze layer, the glaze layer contains 1 mol% or less of PbO, the glaze layer has a Vickers hardness Hv of 100 or more, and the glaze layer contains at least one of phosphate ion, sulfate ion, fluoride ion and chloride ion.

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6. (Amended) The spark plug as set forth in claim 3, wherein the glaze layer further contains 0.5 to 5 mol% in total of at least one of ZrO<sub>2</sub>, TiO<sub>2</sub> and HfO<sub>2</sub>.

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7. (Amended) The spark plug as set forth in claim 3, wherein the glaze layer further contains 0.5 to 5 mol% in total of at least one of MoO<sub>3</sub>, WO<sub>3</sub>, Ni<sub>3</sub>O<sub>4</sub>, Co<sub>3</sub>O<sub>4</sub>, Fe<sub>2</sub>O<sub>3</sub>, and MnO<sub>2</sub>.

8. (Amended) The spark plug as set forth in claim 3, wherein the glaze layer shows an external appearance of 0 to 6 in chroma Cs and 7.5 to 10 in lightness Vs when observed in the state that the glaze is formed on the insulator.

9. (Amended) The spark plug as set forth in claim 3, wherein the insulator is formed with a projection part in an outer circumferential direction at an axially central position thereof, taking, as a front side, a side directing toward the front end of the center electrode in the axial direction, a cylindrical face is shaped in the outer circumferential face at the base portion of the insulator main body in the neighborhood of a rear side opposite the projection part, and the outer circumferential face at the base portion is covered with the glaze layer formed with the film thickness ranging 10 to 50  $\mu\text{m}$ .

Kindly add new claims 10 and 11 as follows.

--10. A spark plug comprising:

a center electrode;

a metal shell;

an insulator comprising alumina ceramic and disposed between the center electrode and the metal shell,

wherein at least part of the surface of the insulator is covered with a glaze layer, the glaze layer contains 1 mol% or less of PbO, the glaze layer has a Vickers hardness Hv of 100 or more, and the glaze layer is formed by adding at least one of phosphates, sulfates, fluorides and chlorides.

11. A spark plug comprising:

a center electrode;

a metal shell;

an insulator comprising alumina ceramic and disposed between the center electrode and the metal shell,

wherein at least part of the surface of the insulator is covered with a glaze layer, the glaze layer contains 1 mol% or less of PbO, the glaze layer has a Vickers hardness Hv of 100 or more, and the glaze layer is formed by adding at least one of  $K_3PO_4$  powder,  $BaSO_4$  powder,  $CaF$  powder and  $KCl$  powder.--

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